NEW BRITISH HYMENOMYCETES.

By A. A. Pearson, F.L.S.

The identification of all the species included in this paper has been confirmed by Monsieur l'Abbé H. Bourdot, to whom I am much indebted. His letters have been freely used in the notes dealing with *Sebacina*. The specific names are used with the significance given to them by Bourdot and Galzin in their papers in the Bull. Soc. Mycol. Fr.

EXIDIA THURETIANA (Lév.) Fr. Hym. Eur. p. 694.

Effused in thick undulating pulvinate or tuberculate patches of a firm gelatinous consistency; opalescent when fresh, sometimes with a pink tinge; hymenium pruinose, finally collapsing into a thin horny yellowish film. Hyphae 1–2½ μ; basidia longitudinally septate 15–20 × 11–15 μ; spores hyaline, cylindrical, curved 15–20 × 5–7 μ. Grows abundantly on the underside of beech sticks lying on the ground.

The large spores and firm consistency are the distinguishing feature of this species.

Horsley, Surrey, Feb. 1920; Painswick, Gloucestershire, May 1920; Worcester, C. Rea, 1920.

SEBACINA Tul.

The species of Sebacina originally described possess a firm crust. The limits of this genus have, however, been extended to include mucous evanescent species.

In Sebacina (sensu stricto) the coriaceous subiculum is sometimes well developed, clavariiform as in *laciniata* Bull., *cristata* Pers., or like a Corticium as in *incrustans* Pers., *sebaceum* Pers. It is now realised that these are all variations of the same species.

But careful observation will show that the above forms, which are summer forms and often almost sterile, are replaced gradually in the autumn and winter by other forms where the coriaceous subiculum is reduced more and more until it disappears. The plant is then spread over the soil or débris and entirely gelatinous-mucous. This form is probably the true *Tremella epigaea* B. et Br. The same plant turned pruinose and bluish by abundant sporulation constitutes *Sebacina caesia* Tul. If growing on wood it might be the same as *S. ambigua* Bres. In all these plants the structure and the spores are the same; only the coriaceous hyphae so abundant on the first forms no longer exist in the last, where, however, the mucous hymenium

remains unchanged. The flat mucous forms are therefore indissolubly linked up with the coriaceous Sebacinas, and there is no point where a division could be made.

SEBACINA FUGACISSIMA Bourd. et Galz. in Bull. Soc. Myc. Fr. XXV, 1909, p. 28.

Effused in a very thin mucous hyaline greyish film, which disappears completely on drying or leaves only a slightly glistening trace barely visible *sub lente*. Hyphae 2–3 μ; basidia longitudinally septate 6–7 × 5–6 μ. Spores hyaline, cylindrical curved $4\frac{1}{2}$–7 × $2\frac{1}{2}$–4 μ.

Horsley, Feb. 1920 and Feb. 1921. On crumbling wood in the last stage of decay.

Since the original description of *Sebacina fugacissima* numerous gatherings have shown the species to be very variable. Some forms are less fugacious than others and the film may vary in thickness, but the structure is the same in all. There is, however, considerable difference in the spore. The commonest is $4\frac{1}{2}$–5 × $3\frac{1}{2}$–4 μ. The type is 6–7 × $2\frac{1}{2}$–$3\frac{1}{2}$ μ. Others are 6–7 × 2–$2\frac{1}{2}$ and 6 × 4 μ.

There are other closely allied forms with larger spores, to which specific names have been given. It is difficult to define the limits and the value of these forms. The only certain fact is that they constitute a long and almost uninterrupted series.

CORTICIUM SPHAEROSPORUM (R. Maire) v. Höhn. et Litsch. in Sitzungsbericht. K. Akad. Wiss. Wien, CXVII, I, p. 1105, 1908 (= *Hypochnus sphaerosporus* R. Maire).

Thinly effused, arachnoid and porous under the lens, edge indeterminate; chalk white, sometimes with a yellow tinge; hyphae 2–4 μ thin-walled with clamp connections; basidia clavate 9–15 × 4–6 μ with 2 or 4 sterigmata 2–$4\frac{1}{2}$ μ long; spores hyaline subglobose or obovate, 1-guttulate, minutely warted with angular warts. 3–6 × $2\frac{1}{2}$–4 μ (mostly $4\frac{1}{2}$ × 4 μ).

Very like *Corticium confine* Bourd. et Galz. in the arachnoid strands covering the hymenium here and there, but easily distinguished by the verrucose spores.

Epping Forest, Oct. 1920 on beech log; Horsley, Feb. 1921 on oak stump.

CORTICIUM SUBMUTABILE v. Höhn. et Litsch. Op. cit. CXVI, 1907, p. 822.

Effused in a very thin pulverulent membrane, pale cream, sometimes with a deeper tint, edge similar; hyphae 1–3 μ thin walled, septate-nodulose, rarely distinct (no clamp connections observed); basidia clavate 8–12 × 4–$4\frac{1}{2}$ μ with 2 or 4 straight

sterigmata $2\frac{1}{2}$–3 μ long; spores hyaline, sub-globose, attenuated at base, usually 1-guttulate, rough with short conical warts 3–$3\frac{1}{2} \times 2$–$2\frac{1}{2}$ μ.

On pine stick, Weybridge, Surrey, Sept. 1920.

PENIOPHORA SPHAEROSPORA v. Höhn. et Litsch. Op. cit. CXV, 1906, p. 1600.

Broadly effused, firmly attached to the substratum, 0·15 to 0·30 mm. thick, edge indeterminate, chalk white, smooth or papillate, waxy when fresh, not cracked when dry. Basidia clavate 25–35 × 6–8 μ with 4 long subulate sterigmata. Cystidia abundant, cylindrical, usually narrowed at apex, thin walled, 35–85 × 5–8 μ projecting above the hymenium. Spores globose 4–7 μ diam. apiculate, colourless, smooth, 1-guttulate. Hyphae smooth, thin walled, somewhat nodulose, often anastomosing with frequent clamp connections, 4–5 μ thick.

On fallen stick, probably alder. Weybridge, Nov. 1920, Rev. J. P. Alexander, C.J. and A. A. P.

PENIOPHORA LAEVIS (Fr.) Burt

Broadly effused, membranous, not closely adnate, at first white, then cream, more or less cracked when dry, edge radiately fibrillose; hyphae regular with few or no clamp connections, walls thin, the sub-hymenial hyphae 3–4 μ diam. basal hyphae up to 7 or 8 μ; cystidia fusoid 40–90 × 4–7 μ with or without incrustation (6–11 μ) walls thin or slightly thickened; basidia very variable, 20–36 × 3–7 μ (most frequently 35 × $4\frac{1}{2}$ μ) with 2 or 4 sterigmata 4–6 μ long; spores elliptical oblong, $4\frac{1}{2}$–6 × $2\frac{1}{2}$–$3\frac{1}{2}$ uniguttulate.

On birch bark, Weybridge, Nov. 1920.

HYPOCHNUS ROSEO-GRISEUS Wakef. et Pearson var. LAVANDULACEUS n. v.

Differs from the type in the greyish lavender colour of the hymenium, without trace of pink.

Found in abundance on the ground under *Castanea vesca* at Porlock, Somerset, Sept. 1920.

HYPOCHNUS GRANULOSUS (Peck) Burt. in Ann. Missouri Bot. Gard. III, 1916, p. 218 (= *Grandinia tabacina* Cooke and Ellis); *Zygodesmus granulosus* Peck; *Hypochnus elaeodes* Bresad.

Effused in a thin separable membrane, granular, sepia, margin somewhat radiate, concolorous; hyphae loosely interwoven, thin walled, occasionally nodose-septate, $2\frac{1}{2}$–4 μ diam. yellowish under the microscope; spores same colour as hyphae,

angular, sub-globose, aculeate, the body about 6 μ diam. Burt gives the habitat as rotten bark, and wood of frondose species. In France it is found on sandstone and chalk. The present specimens (Somerset, Sept. 1920 during Minehead foray) were on a pine stick and were rust coloured.

The specific name *tabacina* of Cooke and Ellis, though having priority is not now available as it is already used for Bresadola's species.

MUCRONELLA AGGREGATA Fr. Hym. Eur. p. 629.

Subiculum absent or occasional, teeth subulate, short, free, but arranged in groups, white then pale. Hyphae 2–4 μ with thin walls, clamp connections sparse, basidia cylindrical or clavate 10–20 × $3\frac{1}{2}$–5 μ; spores hyaline elliptical 4–6 × $2\frac{1}{2}$–4 μ.

Under old log in last stage of decay. Horsley, Oct. 1920, A. A. P. and Rev. J. P. Alexander, C.J.

NEW OR RARE BRITISH DISCOMYCETAE.

By Carleton Rea, B.C.L., M.A. etc.

Pustularia lecithina (Cke.) Rea. *Peziza* (*Humaria*) *lechithina* Cke. in Grev. IV, 110. *Helotium lechithinum* Massee, Brit. Fung. Fl. IV, 233.

In September 1920 Mr James Menzies sent me a fine gathering of this species from the neighbourhood of Perth. The hymenium varied in colour from egg-yellow to a deep red orange due to the position of the receptacles, growing either in water on the underside of a stick, or out of the water and exposed to the light. The asci are cylindrical, 250–290 × 15–18 μ, operculate, and do not turn blue with iodine. The spores are hyaline, elliptical, obtuse at both ends, 18–22 × 10–13 μ, 2-guttulate at maturity and accompanied by granulations. The paraphyses are hyaline, filled with large yellow oil drops in the upper portion, gradually enlarged upwards into the clavate apex, 265–300 × 4–8 μ, simple, or branched, septate, contents not turning green with iodine. The hypothecium is pseudoparenchymatous, averaging 50–60 μ in diam. Boudier in his Histoire et Classification des Discomycètes D'Europe, p. 70, doubtfully assigned this species to the Humariaceae, but it is clear from the extended diagnosis set out above that it must be referred to the Pezizaceae and placed in the genus Pustularia.